12-21-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : Kenneth J. Kirchhoff	Appeal No.
Appln. No. : 09/665,821	
Filed : September 20, 2000	Group Art Unit: 3632
Title : ADJUSTABLE KEYBOARD TRAY	Examiner: G. Baxter
Docket No. : 55824US002 (M534.12-0007)	

BRIEF FOR APPELLANT

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SENT VIA EXPRESS MAIL

Express Mail No.: EV 485710049 US

This is an appeal from an Office Action dated June 18, 2004, in which claims 2-10, 12-17 and 19-32 were considered. In the Office Action, claims 3-5, 6/3, 7/6/3, 8/7/6/3, 9/7/6/3, 10/9/7/6/3, 12/14, 14-17, 19-27 and 29 were allowed, claims 7/6/2, 8/7/6/2, 9/7/6/2 and 10/9/7/6/2 were objected to but indicated to be allowable if rewritten in independent form, and claims 2, 6/2, 12/13, 13, 28 and 30-32 were finally rejected.

Real Party in Interest

The real party in interest is 3M Innovative Properties Company of St. Paul, MN, who is the owner of the entire right, title and interest in the application.

Related Appeals and Interferences

There are no prior or pending appeals, interferences, or judicial proceedings known to appellant, appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims

I. Total number of claims in the application

Claims in the application are: 1-32, inclusive.

II. Status of all the claims

A. Claims canceled: 1, 11, 18

B. Claims withdrawn but not cancelled: none

C. Claims pending: 2-10, 12-17, 19-32

D. Claims allowed: 3-5, 6/3, 7/6/3, 8/7/6/3, 9/7/6/3, 10/9/7/6/3, 12/14, 14-17, 19-27, 29

E. Claims objected to: 7/6/2, 8/7/6/2, 9/7/6/2, 10/9/7/6/2

F. Claims rejected: 2, 6/2, 12/13, 13, 28, 30-32

III. Claims on appeal

A. The claims on appeal are: 2, 6, 12, 13, 28 and 30-32

Status of Amendments

A Response After Final was filed on August 18, 2004, presenting arguments for the allowance of all of the pending claims. This Response After Final was considered by the Examiner, and the Examiner stated in an Advisory Action dated September 16, 2004 that the arguments made by the Applicant were not deemed to be persuasive.

Summary of Claimed Subject Matter

The claimed subject matter that is at issue in this appeal is summarized below.

Independent claim 2 recites an adjustable keyboard tray for use with a center mount bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes a top plate made of polymeric material and a bottom plate made of polymeric material that is secured to the top plate. A mounting plate secures the tray to the bracketing mechanism, the mounting plate

being secured to a bottom surface of the bottom plate of the tray in a recessed mounting area of the bottom plate to maintain a substantially smooth outer surface along the bottom plate. A keyboard tray embodying this claim is shown in FIGS. 4 and 5, with the mounting area (52) on the bottom surface (41) of the bottom plate (14) being recessed, so that a mounting plate (66) is secured to the bottom surface (41) of the bottom plate (14) in such a way that a substantially smooth outer surface along the bottom plate (14) is maintained. See, e.g., page 15, lines 3-17 ("In a preferred embodiment, the mounting area 52 is recessed to accommodate a slidable mounting plate 66 that is maintained therein by a retaining bracket 68 having a central opening 69. The recessed feature of the mounting area 52 allows the retaining bracket 68 to be secured to the adjustable keyboard tray 10 flush with the bottom surface 41 of the bottom plate 14. The ability to flush mount the retaining bracket 68 with the bottom surface 41 maintains a generally smooth and continuous surface across the bottom of the adjustable keyboard tray 10. This is important because the bottom surface typically contacts or brushes against the top or front of the user's thighs as they move about under the adjustable keyboard tray 10 and the horizontal surface. Edges or corners that extend down from the bottom surface of a keyboard tray tend to snag and damage clothing and can even scratch the user's skin. By flush mounting the retaining bracket 68 into the recessed mounting area 52, a generally continuous smooth bottom surface 41 can be maintained, making the adjustable keyboard tray 10 more convenient and comfortable to use.")

Independent claim 13 recites an adjustable keyboard tray for use with a bracketing mechanism that is secured to and translates in and out from a horizontal surface. The tray includes atop plate made of polymeric material, a bottom plate made of polymeric material that is secured to the top plate, a cavity between the top plate and the bottom plate, a series of inner walls that extend from the top and bottom plates along their opposed facing surfaces, wherein the inner walls create an inner pocket along a side of the adjustable keyboard tray, and an opening along the side of the adjustable keyboard tray thay is aligned with the pocket to provide access therein. A mounting plate secures the tray to the bracketing mechanism, the mounting plate being secured to a bottom surface of the bottom plate of the tray in a

recessed mounting area of the bottom plate to maintain a substantially smooth outer surface along the bottom plate. As discussed above, a keyboard tray embodying this claim is shown in FIGS. 4 and 5, with the mounting area (52) on the bottom surface (41) of the bottom plate (14) being recessed, so that a mounting plate (66) is secured to the bottom surface (41) of the bottom plate (14) in such a way that a substantially smooth outer surface along the bottom plate (14) is maintained. See, e.g., page 15, lines 3-17 (reproduced above).

Claim 28 depends from independent claim 2, and further recites that the top and bottom plates are secured together by ultrasonic welding. Ultrasonic welding is illustrated in FIG. 8 by darkened areas (88). See, e.g., page 20, line 27 – page 21, line 16. ("The darkened areas 88 represent the preferred locations to ultrasonically weld the top and bottom polymeric plates 12 and 14 together. By ultrasonically welding the top and bottom plates 12 and 14 together, the polymeric material used to construct the adjustable keyboard tray 10 is bonded together and provides significantly improved stability. The improved stability is achieved via decreased deflection and bounce of the keyboard tray, especially in comparison to commercially available keyboard trays when a mouse platform is attached to the keyboard tray and used in a laterally extended position. The improved stability is demonstrated by the deflection caused by a five pound weight (that approximates the weight associated with mouse activity) placed on the edge of the mouse platform 24 that is laterally extended. The adjustable keyboard tray 10 deflected less than approximately a half of an inch when the five pound weight was added. Similarly, by providing a stronger and more rigid keyboard tray, the adjustable keyboard tray 10 also helps improve damping of any deflection or bounce that may occur. By bonding the top and bottom polymeric plates 12 and 14 together with ultrasonic welding, the adjustable keyboard tray 10 provides a light weight relatively thin yet highly stable surface to place and operate a keyboard and mouse.")

Independent claim 30 recites an adjustable keyboard tray for use with a center mount bracketing mechanism that is secured to and translates in and out from a horizontal surface, that includes a top plate made of a polymeric material and a bottom plate made of polymeric material that is secured to

the top plate such that the top and bottom plates for a cavity therebetween. The top and bottom plates include a plurality of inner walls along their opposed facing surfaces that are ultrasonically welded together. A mounting plate secures the adjustable keyboard tray to the bracketing mechanism. The ultrasonic welding of a plurality of inner walls of the top and bottom plates along their opposed facing surfaces is illustrated in FIG. 8 by darkened areas (88), and is described at page 20, line 27 – page 21, line 16 (reproduced above) and at page 21, lines 17-26 ("The darkened areas 88 are preferred for ultrasonic welding because they provide a sufficiently large area to create a solid bond between the top and bottom plates 12 and 14, respectively, and are spaced from the outer edges of the adjustable keyboard tray 10. Ultrasonic bonding (at darkened areas 88a and 88b) are also provided adjacent each of the indents 59 for added support at a location that will experience stress during operation of its respective release lever 57. Ultrasonic welding is preferably avoided along outer walls 32-38 in order to maintain a rounded, clean, smooth uniform fit at the juncture of the top and bottom plates 12 and 14. Ultrasonically welding along either the inner walls 55, the ribs 82 or other inner surface, rather than the outer edges, also helps avoid rough or sharp edges from forming along the outer edges of the adjustable keyboard tray 10 that could either injure or harm the user or the user's clothing.")

Description of References Relied on by the Examiner

The Examiner has relied on three references in the rejections of the claims.

U.S. Patent No. 4,616,798 to Smeenge et al. ("Smeenge") discloses an adjustable support for a keyboard that is secured to the bottom of a work surface such as a desk. The keyboard support tray (11) is formed of a plastic material molded about a central core (45), and is connected by a support mechanism (12) to the work surface. The support mechanism (12) includes a support plate (50) molded in the underside of the central core (45) of the tray (11), and has a bracket (49) projecting down from the support plate (50). See, e.g., FIG. 2, and description at column 5, lines 34-68.

U.S. Patent No. 5,732,910 to Martin ("Martin") discloses an apparatus for supporting a computer keyboard or laptop computer on the lap of a user. The apparatus includes a top member (21),

a medial member (22) and a lower member (23). The top member (21) has a planar upper surface (24) to support the keyboard. The medial member (22) mates with the top member (21) to form an interior cavity (33) for receiving a drawer assembly (36). The lower member (23) is formed of a resilient foam material, for resting on the lap of the user. No bracketing mechanisms are provided of any kind. See, e.g., FIG. 3, and description at column 4, line 3 – column 5, line 25.

U.S. Patent No. 5,830,552 to Meier et al. ("Meier") discloses a cover or table plate having a core plate (1) and edge protection (5) that engages over the core plate (1). The edge protection (5) comprises two frames (6, 7) that can be welded together, such as by ultrasonic welding. See, e.g., column 6, lines 14-20.

Copies of these references are provided in Appendix B.

Grounds of Rejection / Issues to be Reviewed on Appeal

Claims 2, 6, 12, 13 and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smeenge in view of Martin.

Claim 28 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Smeenge in view of Martin, and further in view of Meier.

Argument

Claims 2-10, 12-17 and 19-32 are pending in this patent application, of which claims 3-5, 6/3, 7/6/3, 8/7/6/3, 9/7/6/3, 10/9/7/6/3, 12/14, 14-17, 19-27 and 29 were allowed, and claims 7/6/2, 8/7/6/2, 9/7/6/2 and 10/9/7/6/2 were indicated to contain allowable subject matter. Thus, the only claims at issue in this appeal are claims 2, 6/2, 12/13, 13, 28 and 30-32.

Claims 2, 6/2, 12/13, 13 and 30-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Smeenge (USP 4,616,798) in view of Martin (USP 5,655,743). Claim 28 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Smeenge in view of Martin, and further in view of Meier (USP 5,830,552). In rejecting these claims, the Examiner made the following contention:

"Smeenge discloses an adjustable keyboard tray comprising a tray (11) having a molded top and bottom plates (not numbered) and a mounting plate (50). The top and bottom plates are made of a polymeric material (col. 5, lines 34+). The mounting plate is secured to the adjustable keyboard tray to (sic) the bracketing mechanism (12). The mounting plate is secured to the bottom plate of the adjustable keyboard tray in a recessed mounting area to maintain a substantially smooth under surface along the bottom plate. See figure 7. The top and bottom plates form a cavity (45) and are made of plastic or synthetic resin. Furthermore, the mounting plate is secured to a bottom surface (which is shown to be the portion or flanges for which the plate is placed) of the bottom plate of the adjustable keyboard in a recessed mounting area of the bottom plate."

Final Office Action dated June 18, 2004, Page 2.

Independent Claims 2 and 13

Independent claims 2 and 13 recite an adjustable keyboard tray that includes a mounting plate that "is secured to a bottom surface of the bottom plate of the adjustable keyboard tray in a recessed mounting area of the bottom plate to maintain a substantially smooth outer surface along the bottom plate." As noted above, the Examiner contended that this recitation is satisfied by Smeenge et al. in that the mounting plate (50) is secured to portions or flanges of the bottom plate that are interpreted as a bottom surface of the plate. This interpretation of Smeenge et al. is not correct. The mounting plate (50) shown in Smeenge et al. (see FIGS. 2 and 7) abuts the bottom surface of the central core (45) that is between the top and bottom plates, and also abuts top surfaces of the bottom plate in the flange areas noted by the Examiner. The mounting plate (50) does not touch the bottom surface of the bottom plate (i.e., the surface of the bottom plate facing the bottom of the apparatus) at any point. The requirement for a mounting plate to be secured to a bottom surface of a bottom plate in a recessed mounting area of the bottom plate is

explicitly recited in claims 2 and 13. This recitation is not disclosed, taught or suggested by Smeenge et al. or by any of the other cited references, including Martin.

In response to prior arguments, the Examiner contended that "the features upon which the applicant relies (i.e., a bottom surface (the exterior) of the bottom plate in a recessed mounting area of the bottom plate) are not recited in the rejected claim(s)." The arguments presented above explicitly point out the recitations in the claims that are not disclosed, taught or suggested by the prior art of record, and therefore this contention made by the Examiner is not correct.

In order to reject a claim under 35 U.S.C. § 103 as being obvious over a combination of references, the references when combined must teach or suggest all of the claim limitations. See M.P.E.P. 2143, 2143.03, citing In re Royka, 490F.2d 981, 180 U.S.P.Q. (BNA) 580 (C.C.P.A. 1974). Because the prior art of record, alone or in combination, does not disclose, teach or suggest all of the elements of independent claims 2 and 13, the rejection of claims 2 and 13 under 35 U.S.C. § 103(a) should be withdrawn.

Dependent Claims 6/2 and 28

Claims 6/2, and 28 depend from independent claim 2, and claim 12/13 depends from independent claim 13. Claims 6/2, 28 and 12/13 are allowable with the claims from which they depend, since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

Independent Claim 30

Independent claim 30 recites an adjustable keyboard tray that includes top plate and bottom plates having a plurality of inner walls along their opposed facing surfaces that are ultrasonically welded together. The Examiner contended that it would have been obvious to have made a top and bottom plate to include a plurality of inner walls along the opposed facing surfaces, "since it has been held that mere duplication of the essential working parts of a device involved only routine skill in the art." This assertion is not proper, and the principle cited by the Examiner does not apply to the recitations of independent claim

30. Providing a plurality of inner walls for the top and bottom plates that are ultrasonically welded together has a particular advantage, as stated in the specification at page 20, line 25 – page 21, line 28, of providing improved stability while retaining the light weight of the apparatus. The plurality of inner walls recited in claim 30 are therefore not simply duplicated essential working parts, but are features that provide additional utility, and these features are not disclosed, taught or suggested by the prior art of record. The Examiner has failed to cite a reference that discloses the elements recited in claim 30, and has not referred to any knowledge generally available in the art that would suggest modifying the teachings of the prior art to include a plurality of inner walls along opposed facing surface of top and bottom plates of an adjustable keyboard tray that are ultrasonically welded together. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. M.P.E.P. 2143.01. Because this teaching, suggestion or motivation is lacking, the modification proposed by the Examiner is not proper, and the rejection of independent claim 30 under 35 U.S.C. § 103(a) should be withdrawn.

Dependent Claims 31 and 32

Claims 31 and 32 depend from independent claim 30, and are allowable therewith, since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

In view of the foregoing, it is respectfully requested that the appeal of claims 2, 6, 12, 13, 28 and 30-32 be granted, so that all of the pending claims (2-10, 12-17, 19-32) of this application are allowed.

Respectfully submitted,

KINNEY & LANGE, P.A.

By: _____ 12/20/04

Alan M. Koenck, Reg. No. 43,724
THE KINNEY & LANGE BUILDING
312 South 3rd Street
Minneapolis, MN 55402-1002
Telephone: (612) 339-1863
Fax: (612) 339-6580

AMK